Page 1

October-05-12 11:24:42 AM D350-636-012 **Revision ID:** Item Name: Skidtube RH **Start Date:** 05/10/2012

Start Qty: 1.00 **Required Date:** 19/10/2012 Req'd Qty: 1.00

Cust Item ID: Customer:

Tool ID

Reference:

Sequence ID/

Approvals: QC:

Process Plan: MLJ Date: \2-\0-05 Tooling:

Date: SPC (Y/N):

Set Up/

Run Hours

Accept

Date:

N900040100

Date:

Reject

Number

Setup Start

Reject

Qty

Run

Accept

Qty

Insp.

Stamp

Work Center ID Description **Draw Nbr Revision Nbr** D2750 F D3492 C

100

DC

DOCUMENT CONTROL

Operation

Memo

0.00

Document Control Photocopy blue file and type labels per PPP D350-636-012 $\,$ CHG 006 $\,$

Tool # Plan

Code

												DQA:	Dat	e.	·
NCR: Y	'es	/ No				WORK ORDER NON-	100	NFOR	MANCE / UPI	DATE	(- QA Closed:	Dat	:e:	,
Work Orde	er:				•••	DISPOSITION				AGAINST D	EP	ARTMENT/	PROCESS		•
Part N	٠٠٠.					Rework Scrap Use-as-is Work Order Update			Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite			Water Jet J. Eng. Coor. e/Packaging Supplier		Engineering Quality Other
Root	Ì				Descri	ption of work order update		nitial	Act	ion		Sign &			
Cause	İ	Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Descr	ription		Date	Verification	٦	QC Inspector
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Material														Ì	
Setup														-	
Other			<u> </u>											İ	
Process											-				
Supplier						• '					-				
Training							1							-	
Unapproved															
						F	AUI	T CATE	GORY						
Landi	ng G	Gear				General									
		Bending				Bend		Grain	•	Γ		Ovalized			Pressure/Forced
	Centre Not Concentric to O/S					BOM/Route		Hardwa	ire			Over/Under	tolerance		Temperature/Cure
	Centre Not Concentric to O/S Cracks					Broken/Damaged		Inspect	ion Incomplete			Part Incorred	:t		Weld

Instructions Incomplete/Unclear

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

Part Moved

Wrong Stock Pulled

Other

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Crushed/Crimped.

Inspection Strip in Tube

Torque Waves in Extrusion

Cuffs

Heat Treat

Burrs

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Page 2

Work Order ID 91388 October-05-12 11:24:42 AM Item ID: D350-636-012 **Revision ID:** Item Name: Skidtube RH **Start Date:** 05/10/2012 Start Otv: 1.00 **Required Date:** 19/10/2012 Req'd Oty: 1.00 Reference: Process Plan: **Approvals:** Sequence ID/ Operation **Work Center ID Description** 110 Skidtubes *110* Skidtubes Memo Skidtubes

Accept

N900040100

Setup Start

Cust Item ID:

Customer:

Date:

Date: ____

Tooling: SPC (Y/N): Date:

Date:

Run

Stop

Set Up/ Run Hours Tool ID

Tool # Plan Accept Code Qty

Reject Qty

Reject Insp. Number Stamp

0.00

0.00

- 1- Pick D2600-3 Bent
- 2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D2750
- 3- Drill pilot holes for blade fitting bolt holes using DT8983. Open to 0.500", deburr.
- 4- Locate DT8329 off of blade fitting bolt holes and drill pilot holes for blade fitting
- 5- Drill only two fwd step holes using DT9616. Ensure proper positioning.
- 6- Drill pilot holes as per Dwg D2750 sheet 4 (D2750-2 details). Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail K)
- 7- Clecko DT8863B on second side of tube and drill pilot holes for detail B. ***SECOND SIDE***
- 8-Open up holes for Detail "K" to 0.375" (4 holes per side)and blade fitting location holes to 0.500" (total of 4 holes per side) as per dwg D2750 .Open up holes for ground handling and detail L to 0.500" (8 holes per side)
- 9-Drill pilot holes for wearplates as per Dwg D2750 using DT8108 open to 0.297".
- 10-Open up holes of Detail A to 0.297" (total of 2 holes per side)

NCR: Y	res /	No				WORK ORDER NON-O	O	NFORM	ANCE / UP	DATE			
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Work Orde	or:					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	4.5
Part N	No					Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root						ption of work order update	1	nitial		tion	Sign &		
Cause		ate	Step	Qty	(or Non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector
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Landi	Landing Gear Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend			o/s	General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short		Instruct Mainte Mislabe Misreac	ion Incomplete ions Incomplete/l enance eled	Unclear	Ovalized Over/Under Part Incorre Part Lost/W Part Moved Positioned Power Loss	ect lissing Wrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other	
	լ (Кір	pies in	Bend		l l	Drill Holes	1	Offset					

Out of Calibration

Out of Sequence

Outside Dimensions

DQA:

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish Folio

130

QC5- Inspect part completeness to step on W/O

0.00

16 / 12/10/17

*13**0***

Memo

0.00

Quality Control

NCR: Y	'es	/ No				WORK ORDER NON-O	COL	NFORM	/ANCE / UPDA	TE	·		•
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Root Cause		Date	Step	Qty	-	otion of work order update or Non-conformance	1	nitial ief Eng	Action Descript		Sign & Date	Verification	QC Inspector
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Out of Sequence

Outside Dimensions

DQA:

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Turning Sequence

Wave/Twist in Tube

Finish

150

150

QC

Quality Control

QC7-Inspect Chemical Conversion Coat

0.00

0.00 Memo

DAS 21 -89

B 12/10/18

Page 4

Insp.

										DQA:	Date:	, " ,
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	Cuffs				Contamination	-	Mainte		<u> </u>	Part Moved		
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		ion Strip ir	1 Tube	<u> </u>	Cut Too Short	-	Misread	I		Power Loss,	'Surge	Other
	Ripples	in Bend		1	Drill Holes		Offset					

Out of Calibration

Out of Sequence

Outside Dimensions

Date:

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Page 5

October-05-12	11:24:42 AM	<i>!</i> 				91.5	ററ							Page
Item ID: Revision ID: Item Name:	D350-636-0 Skidtube RH	12			Acce	pt	*N90	004 0	ງ 10()*	Setup	Start Stop	I VI	S1*
Start Date: Required Date: Reference:	05/10/2012 : 19/10/2012	Start Qty Req'd Qt		*	1* 1*		Cust Iter					·	"IV	S2*
Approvals:	Process Pla	ın:		Date:	Too	oling:		Date:	-	.]	Run	Start	*N	R1*
	QC:		· 	Date:	SPC	C (Y/N):		Date:				Stop	*N	R2*
Sequence ID/ Work Center II 160 *160* Skidtubes Skidtubes	D	:	Memo 1-Open up h side) as per c	dwg D2750. oles of Detail K to	0. 0. and ground handle	Set Up/ Run Hours 00 .00 ing to 0.625" (total	Tool II	D Tool #	# Plan Code	Accept Qty	Re Qt		Reject Number	Insp. Stamp
		. (. (. (. (. (3-Open float 4-Chamfer h (welding inst 5-Deburr and 6-Prepare tub 7-Bond web A/R Sikafl 3- Weld spac (welding inst	holes to .500" (4 oles of Detail K, I tructions on sheet d blow out all chip be for welding, rei D2739 in place as lex-291 bat	L, ground handling) os from inside of move alodine as resper QSI 015 ch: 123 0 2 exp. date: 13 06	required. as per dwg D2750	& QS1004		-/10/18	BIT	z/ic	oli8		
		9	9- At section	AP-AP drill out x	x-bolt spacer to 0.	, 404" \S	6-24 10-24	ŧ	1-					

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	Heat Tre	at			Countersink] Mislabe	eled		Positioned V	Vrong	_

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish

Work Orde	er ID 91388 11:24:42 AM		*913	888*			.a. i	eta eta	Page
Revision ID:	D350-636-012 Skidtube RH		Accept	*N900040	1100*	Setup	Start Stop	171	S1*
	05/10/2012 Start Qty: 1.00	•		Cust Item ID: Customer:				^ IN	S2*
Approvals:	Process Plan:		Tooling:	Date:		Run	Start	1/1	R1*
	QC:	Date:	SPC (Y/N):	Date:			Stop	*N	R2*
Sequence ID/ Work Center ID	Operation Description dwg D27	50	Set Up/ Run Hours	Tool ID Tool #	Code Q		ject y	Reject Number	Insp. Stamp
	12-Debur	r holes		B 12	10/25				
170	QC10- Inspect visual	per QSI004- ground welds	0.00						
QC Quality Control	Memo		0.00	17/6/25					

180

180

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

0.00

Memo

Page 6

											DQA	.: Dat	e:	
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	\vdash			Tubo	<u> </u>	Cut Too Short	-	Misread		<u> </u>	Positioned Power Los	_		Other
	-	Inspectior Ripples in	-	rube	<u> </u>	Drill Holes	-	Offset	1	<u></u>	Trower ros	sysurge		lottiet
	1	vibbies iu	pena		1	ווויוען חטופג	1	onset						

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Work Ord October-05-12		-		* <u>9</u> 13	388*		-	<u></u> -	<u></u>		Page 7
Item ID: Revision ID: Item Name:	D350-636-0 Skidtube RH	12		Accept	*N90004	0100	*	Setup	Start Stop	*N:	S1*
Start Date: Required Date: Reference:	05/10/2012	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item ID: Customer:				эгор	*N:	S2*
Approvals:		in:		Tooling:	Date:			Run	Start	*NI	₹1*
	QC:		Date:	_ SPC (Y/N):	. Date:	<u></u>			Stop	*NI	₹2*
Sequence ID/ Work Center II 190 *100*	D	Operation Description Pressure Wash per QS100	05 4.3	Set Up/ Run Hours 0.00	Tool ID Tool	Code	Accept Qty	Qty	ľ	Reject Number	Insp. Stamp
HandFinish Hand Finishing		Memo Re-alodine to	ube as per QSI 005 section	0.00 n 4.1.2.1 do not acid etch.		-	1-1	- - 			10125
200 **200* Powdercoat Powder Coating	\$78	White Gloss(Ref:4.3.5.1) Memo START TIM OVEN TEMI	per QS1005 4.3-Alum E:	0.00 ··································		· -	ĺχ	9	<u> </u>		M/ 12/15/20
*210 *210* QC	_8 / 0	FINISH TIM: QC3- Inspect Part Finish Memo	3-30	0.00			<u>t</u>	Si		@	12/10/26
Quality Control		Inspect for fo	reign object per QSI 024			f	14				• •

										DQA:	Date:	
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Work Orde	er:				DISPOSITION			AGAIN	121 DE	PARTMENT,	PROCE33	
Part f	4.				Rework Scrap Use-as-is Work Order Update			Skid-tube Crosstu Machining Small F noforming Finish Large Fab Compos	ab ing	1	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root				Descri	ption of work order update		nitial	Action		Sign &		
Cause	Da	te Step	Qty		or Non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector
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Landi	ng Gear			-	General		,			7		7
	Bend				Bend	-	Grain			Ovalized	<u> </u>	Pressure/Forced
	Centre Not Concentric to O/S			O/S	BOM/Route		Hardwa	ire		Over/Under		Temperature/Cure
	Cracks				Broken/Damaged	_	1 `	ion Incomplete		Part Incorre	 	Weld
	Crushed/Crimped.				Burrs	<u>_</u>	4	tions Incomplete/Unclear		Part Lost/M		Wrong Stock Pulled
	Cuffs				Contamination	\perp	Mainte	enance		Part Moved		
	Cuffs Heat Treat				Countersink		Mislabe	eled	- 1	Positioned \	V rong	

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Power Loss/Surge

Other

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish Folio

Page 8

Insp.

October-05-12 11:24:42 AM Item ID: D350-636-012 Accept *N900040100* Setup Start **Revision ID:** Item Name: Skidtube RH **Start Date:** 05/10/2012 Start Qty: 1.00 Cust Item ID: **Required Date:** 19/10/2012 **Req'd Qty:** 1.00 **Customer:** Reference: Run Start Process Plan: **Approvals:** Date: Tooling: Date: Stop SPC (Y/N): Date: Date: Sequence ID/ Operation Tool ID Set Up/ Tool # Plan Accept Reject Reject Work Center ID **Description Run Hours** Code Qty Oty Number Stamp 230 0.00 HandFinishing *230* HandFinish 0.00 Memo RH Hand Finishing 1-Install inserts as per dwg D2750 2-Inspect for Foreign Objects 3-Spray inside of tube with "LPS-3" batch: N/A 4-Install blade fitting D3488-042, wearshoes and ground handling hardware as per dwg D2750 SIKA FLEX 241 BATCH: 123025 EXP DATE: 13/03 5-assemble o'ring to plug as per dwg D3492 and apply o'ring lube A/R 55-o'ring lube batch: 121651

6-Coat all exposed fasteners with "LPS Procyon"

batch: 114596

	ICR: Yes / No										DQA:	Date:	
NCR: Y	es /	No	,			WORK ORDER NON-C	O	NFORI\	MANCE / UPDATE				•
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Work Orac	-''-	······································				Rework			Skid-tube Cross	stube		Water Jet	Engineering
Part N	No.					Scrap				III Fab	Pro	d. Eng. Coor.	Quality
						Use-as-is		Therm	oforming Fini	ishing	Rec/Sto	re/Packaging	Other
NCR N	No					Work Order Update			Large Fab Comp	oosite		Supplier	
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Cause		Date	Step	Qty		or Non-conformance	l	ief Eng	Description		Date	Verification	QC Inspector
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	Cr	acks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld
	⊢		Crimped.			Burrs		Instruct	ions Incomplete/Unclear		Part Lost/M	· -	Wrong Stock Pulled
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	Щн∈	eat Trea	t			Countersink		Mislabe	led		Positioned \	Wrong	_
	d Inding Gear Bending Centre Not Concentric to O/S Cracks Crushed/Crimped. Cuffs Heat Treat			Tube		Cut Too Short		Misreac			Power Loss/	'Surge	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

October-05-12				*	9138	18 *							Page 9
Item ID: Revision ID: Item Name:	D350-636-0 Skidtube RH	12	· · · · · · · · · · · · · · · · · · ·	Accept	*	N900	0040	1100	ገ*	Setup	Start Stop	1.7	S1*
Start Date: Required Date: Reference:	05/10/2012 19/10/2012	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*			Cust Item i	ID:					I	
Approvals:	Process Pla	an:	Date:	Tooling	·	D	ate:			Run	Start	*N	R1*
	QC:		Date:	SPC (Y/	N):	D	ate:				Stop	*N	R2*
Sequence ID/ Work Center II 240 *240* QC Quality Control)	Operation Description QC5- Inspect part compl	leteness to step on W/O	Set U Run 1 0.00 0.00	p/ Hours PAS 15, //	Tool ID	Tool#	Plan Code	Accept Qty	t Rej Qty		Reject Number	Insp. Stamp
*250 *250* Packaging Packaging		Pick Kit Memo		0.00					4				12/10/31
260 *260* QC Quality Control		QC4- 100% Inspect kits Memo	for completeness	0.00	249 15, 12,1031								

										DQA:	Date:	."
NCR:	Yes / No				WORK ORDER NON-	COI	NFORI	MANCE / UPDATE				
					T					QA Closed:	Date:	
Work Orde	or:				DISPOSITION			AGAINST [DEI	PARTMENT/	PROCESS	
WOIR OIG	ei. 		···		Rework	1		Skid-tube Crosstube	\neg		Water Jet	Engineering
Part N	No.				Scrap	1		Machining Small Fab	┥	Proc	d. Eng. Coor.	Quality
					Use-as-is	1		noforming Finishing			e/Packaging	Other
NCR 1	No.				Work Order Update	1		Large Fab Composite		•	Supplier	
						_						
Root				1	ption of work order update	1	nitial	Action		Sign &		
Cause	Date	Step	Qty	•	or Non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator												
Material												
Setup	<u> </u>	ļ				5	ŧ					
Other						1						
Process												
Supplier		1										
Training												
Unapproved			<u> </u>				TCATE	CORV				
Landi	ng Gear				r General	AUL	T CATE	GURY				
Latiui	Bending				Bend		Grain	Г		Ovalized	Г	Pressure/Forced
	—	ot Conce	ntric to	0/5	BOM/Route		Hardwa	l ro	-	Over/Under	tolerance	Temperature/Cure
	Cracks	ot conce	nunc to	^{0/3} -	Broken/Damaged	-	-	ion Incomplete		Part Incorred	<u> </u>	Weld
	—	/Crimped	•	-	Burrs	-	1	ions Incomplete/Unclear		Part Incorrec	 -	Wrong Stock Pulled
	Cuffs	crimpeu	•	<u> </u>	Contamination	-	Mainte	· · · · · · · · · · · · · · · · · · ·	_	Part Moved	331116	T ** Total & Stock i diled
	Heat Tre	at		<u> </u>	Countersink		Mislabe	<u> </u>		Positioned V	Vrong	

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Power Loss/Surge

Other

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

0.00

0.00

QC21- Final Inspection - Work Order Release

Memo

280

Quality Control

12/11/5/2 ML5 12-11-02

Page 10

Insp.

												DQA:	Dat	e:	•
NCR:	es /	No				WORK ORDER NON-C	100	NFORM	MANCE / UP	DATE		•		•	•
									-		QA	Closed:	Dat	e:	
Work Orde	er.					DISPOSITION				AGAINST DE	PAR	TMENT/	PROCESS		
	 No					Rework Scrap Use-as-is Work Order Update			Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite			Water Jet d. Eng. Coor. e/Packaging Supplier		Engineering Quality Other
Root					Descri	ption of work order update		Initial	Ac	tion	S	ign &			
Cause		Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Desc	ription		Date	Verification	<u> </u>	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved		÷													,
						",",	AUL	T CATE	GORY						
Landi	В С С С Н	ending entre No racks rushed/o uffs eat Trea spection	n Strip in	•	o/s	General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short		Instruct Mainte Mislabe Misread	on Incomplete ions Incomplete/ enance eled	Unclear	Ove Par Par Par Pos	alized er/Under et Incorrec et Lost/Mi et Moved sitioned V wer Loss/	ssing Vrong		Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	R	pples in	Bend		ı	Drill Holes	1	Offset							

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print

October-05-12 11:24:47 AM

Work Order ID: 91388

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

91388 *D350-636-012*

Start Date: 05/10/2012

Start Qty: 1.00

Required Date: 19/10/2012

Required Qty: 1.00

Comments:

IPP Rev:I02.09.25Rearranged procedure stepsKJ

IPP Rev:J 06-03-29 As per Rev D IPP Rev:K 06-07.13 As per dsi9343 EC

IPP Rev:L 07-07-28 Added SS Wearplates(Rev E) JLM Verified By:EC

IPP Rev:M 08-04-22 update steps 4,13 DD verified by:EC

Manufactured

No

IPP Rev:N 08-09-23 revF as per dwg DD verified by:ec IPP Rev:O 10.06.22 revise seq110 DD verf:EC

IPP Rev:P 10.10.01 as

per IIN revH DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2600-3-BENT		Manufactured	No		-	110	Each	23.0000	1	1			
D2600-3- Extrusion Bent	RFNT								**		b 12	10/11	

						 - t		
Location	Loc	e Qty	Loc Code			·		
LG		23						
66875		7						
73253		1					•	
75021		1						
75022		1						
75023		1						
81330		4						
83305		1						
88712		5						
90251		2						
	110	Each	32.0000	1	1			

**

Location Loc Qty Loc Code LG002 32 62715 85506 31

BE12-10-16

											DQA:	Dat	te: _	, a . a
NCR:	res / No)			WORK ORDER NON-	COI	NFOR	MANCE / UP	DATE		·	_	_	•
											QA Closed:	Dat	te:	
Work Orde	ar.				DISPOSITION				AGAIN	ST DE	PARTMENT	PROCESS		
WORK OTCH	er				Rework	7		Skid-tube	Crosstul	ne 🗀	}	Water Jet		Engineering
Part f	٧n				Scrap	-		Machining	Small Fa	- ⊢	Pro	d. Eng. Coor.	_	Quality
7 47 (1	···				Use-as-is	1		noforming	Finishi	- ⊢-	ł	e/Packaging	\exists	Other
NCR I	No.				Work Order Update	1		Large Fab	Composi		,	Supplier		
Root				Descri	ption of work order update		Initial	Ac	tion		Sign &			
Cause	Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Desc	ription		Date	Verification	n	QC Inspector
Doc/Data														
Equip/Tooling														
Operator		1												
Material													Ì	
Setup														
Other														
Process														
Supplier													1	
Training													l	
Unapproved														
					F	AUI	T CATE	GORY						
Landi	ng Gear				General		-				-		_	
	Bendin	g			Bend		Grain				Ovalized			Pressure/Forced
	Centre	Not Conce	ntric to	o/s	BOM/Route		Hardwa	ire		L	Over/Under	tolerance	\square	Temperature/Cure
	Cracks				Broken/Damaged	L	Inspect	ion Incomplete			Part Incorre	ct		Weld
	Crushe	d/Crimped			Burrs		Instruct	ions Incomplete/	Unclear		Part Lost/M	issing		Wrong Stock Pulled
	Cuffs				Contamination		Mainte	enance			Part Moved			

Mislabeled

Out of Calibration

Out of Sequence

Outside Dimensions

Misread

Offset

Positioned Wrong

Power Loss/Surge

Other

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Picklist Print October-05-12 11:24:47 AM										Page 2
Work Order ID: 91388		*9138								
Parent Item: D350-636-012 Parent Item Name: Skidtube RH		*D350	0-636-01	2*			art Date: (tart Qty: 1	.00	Required Date: 19/10 Required Qty: 1.00	0/2012
D2739 *D2739* 3501Beam	Manufactured	No		160	Each :	5.0000	1 **		12/10/18_	
		<u>Loca</u> LG	72155 81508 85487 86615 87734		2 <u>L</u> / 5 1 1 1 1	oc <u>Code</u>				
D2743 *D2743* Crossbolt Spacer	Manufactured	No		160	Each 2	235.0000	8 **	8	BE 12-10:	24
	•	<u>Loca</u> LG LG00	81965 83262 85459 88504	Loc Oty 16 2. 14 12: 74	1 3 2 4 4 2 4 4 4 3 4	oc Code		8		
D3490-3 *D3490-3* Cross Bolt Spacer	Manufactured	No		160 i	Each 3	4.0000	4 **	4	Ab 12-10:	24
		<u>Locat</u> LG00		<u>Loc Qty</u> 34	ļ	oc Code				

Shop Packet Print

Page 2

October-05-12 11:24:47 AM

NCR: Y	es / No				WORK ORDER NON-C	CON	FORN	ИANCE / UP	DATE			•
										QA Closed:	Date:	
Work Orde	r·				DISPOSITION				AGAINST DE	PARTMENT,	/PROCESS	
···o····· o··ac				<u>.</u> _	Rework	1 I		Skid-tube	Crosstube		Water Jet	Engineering
Part N	0.				Scrap	1		Machining	Small Fab	Pro	d. Eng. Coor.	Quality
					Use-as-is	1	Therm	noforming	Finishing	Rec/Sto	re/Packaging	Other
NCR N	o				Work Order Update]		Large Fab	Composite		Supplier	
Root	1	T		Descri	tion of work order update	In	itial	Ac	ction	Sign &		T
Cause	Date	Step	Qty		or Non-conformance	Chie	ef Eng	Desc	cription	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator [1						
Material [
Setup						l						
Other												}
Process												
Supplier												
Training						1						
Unapproved						<u> </u>						
					F	AULT	CATE	GORY			·	
Landin	g Gear			_	General					,	_	_
	Bending			<u> </u>	Bend	Щ	Grain			Ovalized		Pressure/Forced
Ĺ	Centre N	ot Concei	ntric to C)/s	BOM/Route	Ш٢	Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Cracks			<u> </u>	Broken/Damaged	<u> </u>	nspecti	on Incomplete		Part Incorre	ct	Weld
_	Crushed/	Crimped.			Burrs			ions Incomplete	/Unclear	Part Lost/M	issing	Wrong Stock Pulled
	Cuffs				Contamination		Mainte	nance		Part Moved		
L	Heat Trea	at			Countersink	<u></u>	Mislabe	led		Positioned \	Wrong	_
	Inspectio	n Strip in	Tube		Cut Too Short	Ш۲	Misreac	i		Power Loss/	'Surge	Other
	Ripples ir				Drill Holes		Offset					
	Torque V	/aves in E	extrusion		Drawing		Out of 0	Calibration				
	Turning S	equence			Finish		Out of S	Sequence				
	Wave/Tw	ist in Tub	oe		Folio		Outside	Dimensions				

Date:

DQA:

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print

October-05-12 11:24:47 AM

Work Order ID: 91388

Parent Item:

D350-636-012

Parent Item Name: Skidtube RH

91388 *D350-636-012*

Start Date: 05/10/2012

Required Date: 19/10/2012

Start Qty: 1.00

Required Qty: 1.00

D3490-1

D3490-1

Cross Bolt Spacer

Manufactured

160

Each

97.0000

**

Location	Lo	e Oty	Loc Code		
LG		88			
81976		2			
86979		32			
88617		54			4
LG001		9			
62450		2			
74875		4			
77042		3			
	230	Each	127.0000	8	8

D3631-1

D3631-1

Washer

Manufactured No

8 00 12/10/25

Location		Loc Qty	Loc Code	
FG	91606	28	·· ·······	Ч
	81874	2		
	83588	26		
FP-A		84		
	89277	84		Ч
ST072		15		•
	68062	2		
	75548	13		

										DQA:	Date:	
NCR:	Yes /	Vo			WORK ORDER NON-		VFOR	MANCE / UPDA				
					,		,		· · · · · · · · · · · · · · · · · · ·	QA Closed:	Date:	
Work Ord	or:				DISPOSITION				AGAINST DEF	PARTMENT	PROCESS	
Work Old	ei				Rework	7		Skid-tube (Crosstube		Water Jet	Engineering
Part	No.				Scrap			—	Small Fab	Pro	d. Eng. Coor.	Quality
					Use-as-is	1		noforming	Finishing		e/Packaging	Other
NCR	No				Work Order Update]		~ 	Composite	•	Supplier	
				,		لب	<u> </u>			,		
Root				1	iption of work order update	1	nitial	Action		Sign &		
Cause	Da	te Step	Qty		or Non-conformance	Ch	ief Eng	Descript	ion	Date	Verification	QC Inspector
Doc/Data	Ш											
Equip/Tooling												
Operator	H			Ì								
Material	H											
Setup	Н											
Other	H											
Process	\vdash			:								
Supplier Training	H							Į				
Unapproved	H								İ			
Ollappioved	<u> </u>	<u> </u>		<u></u>		ΔШ	T CATE	GORY				<u> </u>
Landi	ing Gear				General							
	Bend	ling			Bend		Grain			Ovalized		Pressure/Forced
	\vdash	re Not Conc	entric to	o/s	BOM/Route		Hardwa	ire		Over/Under	tolerance	Temperature/Cure
	Crac				Broken/Damaged		4	ion Incomplete		Part Incorre		Weld
	Crus	ned/Crimpe	d.		Burrs		1 '	tions Incomplete/Unc	lear	Part Lost/Mi	 	Wrong Stock Pulled
	Cuffs	•			Contamination		Mainte			Part Moved	- h	-
	Heat	Treat			Countersink		Mislabe	eled		Positioned V	Vrong	

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print

October-05-12 11:24:47 AM

Work Order ID: 91388

Parent Item:

D350-636-012

Parent Item Name: Skidtube RH

91388 *D350-636-012*

Start Date: 05/10/2012

Required Date: 19/10/2012

Start Qty: 1.00

Required Qty: 1.00

D3791-1

Wearplate

D3791-1

Manufactured

230

Each

21.0000

**

Location Loc Qty Loc Code FP001 18 89244 FP002 62239 83392

D3793-3

D3793-3

MS21043-6

Wearshoe

No

Manufactured No

Purchased

230

Each

16.0000

Loc Code

**

Location Loc Qty Loc Code FP001 16 83901 4 87135 12 230 460.0000 Each

Location Loc Qty FG 20 103693 20 ST301 440 117887 120308 436

NUT

- MS21043-6

October-05-12 11:24:47 AM

Shop Packet Print

Page 4

											DQA:	Date:	
NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORM	JANCE / UP	DATE			
											QA Closed:	Date:	
Work Orde	er:					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part f	•					Rework Scrap Use-as-is			Skid-tube Machining noforming	Crosstube Small Fab Finishing	4	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR I	No.					Work Order Update	_		Large Fab	Composite	j	Supplier	
Root					Descri	ption of work order update		Initial	Ac	ction	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling													
Operator												l e	
Material													
Setup												-	
Other							1						
Process											1		
Supplier													
Training													
Unapproved											-		
							AUI	T CATE	GORY				
Landi	ng (Gear				General					_	·	_
		Bending				Bend		Grain			Ovalized	•	Pressure/Forced
		Centre No	ot Conce	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
		Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld
		Crushed/	Crimped.			Burrs		Instruct	ions Incomplete	/Unclear	Part Lost/M	issing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance		Part Moved	-	-
		Heat Trea	ıt			Countersink		Mislabe	led		Positioned \	V rong	
		Inspection	n Strip in	Tube		Cut Too Short		Misread	j		Power Loss,		Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

October-05-12 11:24:47 AM

Work Order ID: 91388

Parent Item:

D350-636-012

Parent Item Name: Skidtube RH

91388 *D350-636-012*

Start Date: 05/10/2012

Required Date: 19/10/2012

Start Qty: 1.00

Required Qty: 1.00

1 @ 12/10/25

D3794-1

Manufactured

D3794-1

NAS1611-010

Purchased

No

Location Loc Qty FP 10 87631 10 FP002 83395 FP012 12 90163 12 230 Each

230

Each

140.0000

**

23.0000

Loc Code

NAS1611-010

Location	Loc Qty	Loc Code
FP001	140	
110915	14	
117460	8	
118077	, 1	
118612	3	
119438	47	
121259	2	
121584	2	
121723	7	
122151	56	

123352

											DQA:	Date:						
NCR:	Yes	/ No				WORK ORDER NON-O	COI	NFORM			•							
											QA Closed:	Date:						
Work Orde	or:					DISPOSITION		AGAINST DEPARTMENT/PROCESS										
VVOIK OIU	ei. -					Rework	٦		Skid-tube	Crosstube	1	Water Jet	Engineering					
Part N	۷o				·	Scrap		יו	Machining	Small Fab	-{	d. Eng. Coor.	Quality					
						Use-as-is	-		noforming	Finishing	Rec/Sto	re/Packaging	Other					
NCR I	No					Work Order Update	J		Large Fab	Composite]	Supplier	J L_J					
Root					Descri	ption of work order update		Initial	Act	ion	Sign &							
Cause		Date	Step	Qty	(or Non-conformance	Ct	nief Eng	Descr	iption	Date	Verification	QC Inspector					
Doc/Data	Ш																	
Equip/Tooling																		
Operator																		
Material																		
Setup																		
Other	Ш																	
Process																		
Supplier								:										
Training																		
Unapproved											<u> </u>	<u> </u>						
						F	AUI	LT CATE	GORY									
Landi	ng G	iear				General		-			_		_					
	Ш	Bending				Bend		Grain			Ovalized		Pressure/Forced					
	Centre Not Concentric to O/S					BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure					
	Cracks					Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld					
		Crushed/	Crimped			Burrs		Instruct	ions Incomplete/L	Jnclear	Part Lost/M	issing	Wrong Stock Pulled					
		Cuffs				Contamination		Mainte	nance		Part Moved							
		Heat Trea	at			Countersink		Mislabe	led		Positioned \	Wrong						
		Inspectio	n Strip in	Tube		Cut Too Short		Misread	I		Power Loss,	'Surge	Other					
		Ripples in	Bend			Drill Holes		Offset										

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Picklist Print

October-05-12 11:24:47 AM

Work Order ID: 91388

Parent Item:

D350-636-012

Parent Item Name: Skidtube RH

91388 *D350-636-012*

Start Date: 05/10/2012

Required Date: 19/10/2012

Start Qty: 1.00

Required Qty: 1.00

Manufactured

Purchased

No

250

Each 61.0000

**

NAS1515H3L

*NAS1515H31 * WASHER

Location	Lo	c Qty
FG		2
85480		2
ST		-10
ST466		69
71856		1
85480		19
88824		39
	230	Each

Loc Code 219.0000

**

Location	1	Loc Qty	Loc Code					
FG		40						
	102472	40						
ST277		179						
	118686	3						
	120360	11						
	121556	45						
	122151	120						

											DQA:	Date	:
NCR:	Yes	/ No				WORK ORDER NON-	CON	NFORN		_	•		
											QA Closed:	Date	
Work Orde	er.				:	DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
l voik orak	-					Rework]		Skid-tube	Crosstube		Water Jet	Engineering
Part No.						Scrap		Machining	Small Fab	4	d. Eng. Coor.	Quality	
						Use-as-is	1		noforming	Finishing	Rec/Sto	re/Packaging	Other
NCR i	۷o. ₋					Work Order Update]		Large Fab	Composite	J	Supplier	
Root	Root Descri					ption of work order update	1	Initial Action			Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling	Ш					·							
Operator	lacksquare												
Material	Щ										ļ		
Setup													
Other	Ш												
Process	Ш				:								
Supplier	Ш		l										
Training	Ш		ļ										
Unapproved			<u> </u>								<u></u>		
							AUL	T CATE	GORY		·		
Landi		ı				General	_	1			1	Г	٦
	Bending					Bend	<u> </u>	Grain			Ovalized		Pressure/Forced
[-	Centre N	ot Conce	ntric to.	o/s	BOM/Route	<u> </u>	Hardwa		_	Over/Under	├ ~	Temperature/Cure
	Cracks					Broken/Damaged	\vdash	4	on Incomplete		Part Incorre	⊢	Weld
	-	Crushed/	Crimped			Burrs	<u> </u>	4	ions Incomplete/	'Unclear	Part Lost/N		Wrong Stock Pulled
	\vdash	Cuffs			<u> </u>	Contamination	<u> </u>	Mainte		<u> </u>	Part Moved		
	\vdash	Heat Trea				Countersink	<u></u>	Mislabe		<u> </u>	Positioned '		
	Ш	Inspectio	n Strip in	Tube		Cut Too Short	_	Misread	d	<u></u>	Power Loss	/Surge	Other
1	1	Dinnloc ir	Rond		1	Drill Holes	1	Offcot					

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

October-05-12 11:24:47 AM

NAS1611-013

Work Order ID: 91388

Parent Item:

NAS1611-013

D350-636-012

Parent Item Name: Skidtube RH

91388

No

Purchased

D350-636-012

Start Date: 05/10/2012

Required Date: 19/10/2012

Start Qty: 1.00

Required Qty: 1.00

230

**

216.0000

Location	Loc Qty	Loc Code	
FP001	216		
116582	5		
117291	2		
117887	53		
119623	36		
121825	18		
121826	2		
122993 🗸	100		

Each

October-05-12 11:24:47 AM

												DQA:	Date	e: _	* * * * * * * * * * * * * * * * * * * *
NCR:	⁄es	/ No	i.			WORK ORDER NON-CONFORMANCE / UPDATE									
										******	(QA Closed:	Date	2:	
Morle Orde	a r .					DISPOSITION				AGAINST D	EP	PARTMENT	PROCESS		
Work Orde	-					Rework	1		Skid-tube	Crosstube	Water Jet				Engineering
Part f	۷o.					Scrap		ſ	Machining	Small Fab			d. Eng. Coor.	\exists	Quality
NCR I	۷o					Use-as-is Work Order Update	Use-as-is Thermoforming Finishing Work Order Update Large Fab Composite					Rec/Stor	e/Packaging Supplier		Other
Root					Descri	ption of work order update		Initial Action			Ī	Sign &			
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Descri	ption		Date	Verification		QC Inspector
Doc/Data											١				
Equip/Tooling															
Operator								:							
Material														-	
Setup															
Other				1							Į				
Process											١			ı	
Supplier							İ								
Training															
Unapproved							<u> </u>								
						F	AUL	T CATE	GORY				·		
Landi	ng G	Gear				General		_		_		•	-		
		Bending				Bend		Grain				Ovalized			Pressure/Forced
		Centre N	ot Conce	ntric to	o/s	BOM/Route		Hardwa	re			Over/Under	tolerance		Temperature/Cure
	Cracks					Broken/Damaged		Inspecti	on Incomplete			Part Incorre	ct [Weld
	Crushed/Crimped					Burrs		Instruct	ions Incomplete/U	Inclear		Part Lost/M	ssing		Wrong Stock Pulled
		Cuffs				Contamination		Mainte	enance			Part Moved			
		Heat Trea	at			Countersink		Mislabe	eled	Γ		Positioned V	Vrong _		
	П	Inspectio	n Strip in	Tube		Cut Too Short		Misread	t	[Power Loss/	Surge		Other
	Ripples in Bend					Drill Holes		Offset			-	_			

Out of Calibration Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

October-05-12 11:24:47 AM

Work Order ID: 91388

Parent Item:

D350-636-012

Parent Item Name: Skidtube RH

Purchased

Purchased

No

91388 *D350-636-012*

Start Date: 05/10/2012

Required Date: 19/10/2012

Required Qty: 1.00

Start Qty: 1.00

**

1.071.000

AN3C6A

AN3C6A

Location Loc Qty

230

Each

Loc Code FG 10 122416 10 FP001 111982 ST351 1060 111982 2 116419 23 116549 2 116704 12 117619 10 117688 117872 5 118422 13 119449 21

No

120423

120693

121682 122416

122599

500 230 Each

3

38

426

417.0000

**

Location Loc Qty Loc Code 296 200 122441 200 ST297 217 114915 217

NAS1149C0832R

NAS1149C0832R

WASHER

												DQA:	Dat	e:	
NCR:	Yes	/ No				WORK ORDER NON-	NFORM	,	QA Closed:	Dat	٠۵٠	•			
									<u>"</u>	· · · · · · · · · ·				е.	
Work Orde	er:					DISPOSITION				AGAINST D	EP	ARTMENT/	PROCESS		
Part No.						Rework Scrap Use-as-is	Scrap Machining Small Fab			Crosstube Small Fab Finishing	Water Jet Prod. Eng. Coor. Rec/Store/Packaging				Engineering Quality Other
NCR 1	No.		<u></u>			Work Order Update			Large Fab	Composite			Supplier		
Root		-			Descri	ption of work order update		nitial	Ac	tion		Sign &			
Cause		Date	Step	Qty	(or Non-conformance	Cr	ief Eng	Desc	ription		Date	Verification	┙	QC Inspector
Doc/Data															
Equip/Tooling											1			- 1	
Operator											١	ļ			
Material															
Setup			:								-				
Other											1				
Process															
Supplier			1												
Training															
Unapproved															
						F	AUI	T CATE	GORY						
Landi	ng G	iear				General		_							
		Bending				Bend		Grain				Ovalized		L	Pressure/Forced
		Centre No	ot Conce	ntric to	o/s	BOM/Route		Hardwa	re			Over/Under	tolerance	L	Temperature/Cure
	Cracks					Broken/Damaged		Inspecti	on Incomplete			Part Incorred	ct	L	Weld
		Crushed/	Crimped.			Burrs		Instruct	ions Incomplete,	/Unclear		Part Lost/Mi	ssing		Wrong Stock Pulled
		Cuffs				Contamination		Mainte	enance	Γ		Part Moved	•		-
	П	Heat Trea	it			Countersink		Mislabe	eled	Γ	\exists	Positioned Wrong			
	П	Inspection	n Strip in	Tube	<u> </u>	Cut Too Short							Surge	Г	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drill Holes

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print

October-05-12 11:24:47 AM

Work Order ID: 91388

Parent Item:

D350-636-012

Parent Item Name: Skidtube RH

91388 *D350-636-012*

Start Date: 05/10/2012

Required Date: 19/10/2012

Start Qty: 1.00

Required Qty: 1.00

D3536-25

D3536-25

Manufactured

Manufactured

230

Each 8.0000

Loc Code

Loc Code

**

D3794-3

Location Loc Qty 87053 FP002 89057 230

Each 20.0000

**

Location Loc Oty FP002 20 74530 2 86243 18

												DQA:	Date	:	
NCR:	Yes /	No				WORK ORDER NON-	COI	NFORN	IANCE / UP	DATE		O A Cld.	Data		
												QA Closed:	Date	:	
144 and Oud						DISPOSITION				AGAINST D	ΕP	ARTMENT/	PROCESS		
Work Orde	er:					Rework Skid-tube Crosstube			Crosstube	Water Jet			٦	Engineering	
Part N	No.					├ ─┤ ! ├─┤			Small Fab	┥	Proc	d. Eng. Coor.	\dashv	Quality	
1 41111	••• —				· ·	Use-as-is	⊣ ' 			Finishing	1		e/Packaging	7	Other
NCR	No.					Work Order Update	1		Large Fab	Composite	┪	,	Supplier	1	
						·	_			· <u> </u>	_				
Root					Descri	ption of work order update]]	Initial	Ac	tion		Sign &			
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Desc	ription		Date	Verification		QC Inspector
Doc/Data	Ш										1				
Equip/Tooling								ļ							
Operator	Ш]			1				
Material	Ш														
Setup	Ш										Ì				
Other	<u> </u>														
Process	Ш													-	
Supplier			i												
Training															
Unapproved			<u> </u>	<u> </u>	İ			T. C. A. T. E.	2004						· · · · · · · · · · · · · · · · · · ·
1 1*							AUI	T CATE	JORY	· · · · · · · · · · · · · · ·					
Landi	ng Gea					General Bend	Г	Grain		Г	٦	Ovalized	Г	\neg	ressure/Forced
	\blacksquare	nding	t Canaa	atria ta	O/s	BOM/Route	-	Hardwa	ro	-		Ovanzed Over/Under	talaranca		emperature/Cure
	Centre Not Concentric to O/S				^{0/3}	Broken/Damaged	\vdash		on Incomplete	-	1	Part Incorred	 	_	/eld
Cracks Crushed/Crimped.				-	Burrs	\vdash	4	ions Incomplete	/Unclear		Part Lost/Mi	}_	_	rong Stock Pulled	
	Hcu		umpeu,		-	Contamination		Mainte		Officical	-	Part Moved	33.116 L		TOTAL STOCK TOTAL
	$\boldsymbol{\vdash}$		t		-	Countersink	-	Mislabe		-	-4	Positioned V	Vrong		
	H H			Cut Too Short		Misread			\dashv	Power Loss/	Ĭ F	\neg	ther		

Offset

Out of Calibration
Out of Sequence

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drill Holes

Drawing

Finish Folio October-05-12 11:24:47 AM

Work Order ID: 91388

Parent Item:

D350-636-012

Parent Item Name: Skidtube RH

Purchased

Manufactured

No

No

FG

91388 *D350-636-012*

Start Date: 05/10/2012

Required Date: 19/10/2012

Start Qty: 1.00 34

**

Required Oty: 1.00

901.0000

AN3C5A

AN3C5A

Each

230

Location Loc Qty Loc Code 5 122800 5 7

FP001 115835 7 ST350 889

115835 0 116419 28

117343 13 117764 7 117872 2

122141

122800

119749 23 120423 28 121255 23 121708

230

406 80 279

Each

86.0000

**

Wearpad

D3537-1

Location Loc Qty Loc Code 2 2 FP001 36 83851 36 FP002 48 83254

83255 3 87697 37 88562 7

										[DQA:	Date	e:		
NCR: Y	es / No				WORK ORDER NON-	COI	NFORM	/ANCE / UP	DATE	QA Clo	osad.	Date	۵.		
			·											!!	
Work Orde	er:				DISPOSITION AGAINST D			AGAINST DE	DEPARTMENT/PROCESS						
					Rework Skid-tube			Skid-tube	Crosstube	Water Jet				Engineering	
Part N	lo				Scrap Machining Small Fab			Small Fab			d. Eng. Coor.		Quality		
					Use-as-is]	l .	noforming	Finishing	Red	c/Sto	re/Packaging	_	Other	
NCR N	lo	· · · ·			Work Order Update	J		Large Fab	Composite]		Supplier			
Root		T		Descri	ption of work order update		nitial	Act	ion	Sign	1 &	-	Т		
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Descr	iption	Da	te	Verification		QC Inspector	
Doc/Data															
Equip/Tooling										Ì					
Operator															
Material						1		ļ							
Setup						1									
Other															
Process]	İ		
Supplier															
Training															
Unapproved						<u> </u>				<u> </u>					_
					<u> </u>	AUL	T CATE	GORY							_
Landi	ng Gear				General					-		-			
	Bending				Bend		Grain			Ovaliz	ed]		ressure/Forced	
	Centre Not Concentric to O/S			o/s	BOM/Route		Hardwa	re		Over/	Under	tolerance	1	emperature/Cure	
Cracks				Broken/Damaged		Inspecti	ion Incomplete	_	Part Ir	ncorre	ct [\	Weld		
	Crushed	/Crimped			Burrs		Instruct	ions Incomplete/l	Jnclear	Part L	ost/M	issing	\	Wrong Stock Pulled	ţ
	Cuffs				Contamination		Mainte	nance		Part N	Noved				
	Heat Tre	at			Countersink		Mislabe	led		Positioned Wrong					
	Inspection Strip in Tube Cut Too Short					Misread				r Loss/	'Surge		Other		

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Öctober-05-12 11:24:47 AM

Work Order ID: 91388

Parent Item:

D350-636-012

Parent Item Name: Skidtube RH

91388

D350-636-012

Start Date: 05/10/2012

Required Date: 19/10/2012

Start Qty: 1.00

Required Qty: 1.00

D3535-25

D3535-25

Manufactured

Manufactured

230

Each

29.0000

Loc Code

1 8 12/10/25

Location	Lo	oc Oty
FP001		29
62233		1
81357		1
83387		1
87385		13
90061		13
	230	Fach

183.0000 **

12/10/25

Plug

D3492-3

Locatio	<u>on</u>	Loc Qty	Loc Code
FP001		40	
	90322	40	
FP002		40	
	89291	40	
FP-A		103	,
	81967	5	
	83099	3	
	83529	46	

AN960C10L

washer

NAS1149C0332 Purchased No

**

D 12/0/25

Location

85461

86865

Loc Oty 21 21

230

9

40

Each

Loc Code

21.0000

38

*AN960C101 *

											DQA:	Date			
NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORI	MANCE / UP	DATE			• •		
											QA Closed:	Date	:		
Work Ord	or:					DISPOSITION AGAINST DE				AGAINST DE	EPARTMENT/PROCESS				
VVOIR OIG	C1.					Rework Skid-tube Crosstube				Crosstube	1	Water Jet	Engineering		
Part I	No.					Scrap	i	Machining	Small Fab	Pro	d. Eng. Coor.	Quality			
	-					Use-as-is		noforming	Finishing	4	re/Packaging	Other			
NCR	NCR No.					Work Order Update	1		Large Fab	Composite]	Supplier			
Root						ption of work order update	1	Initial	Act		Sign &				
Cause	,	Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Descr	iption	Date	Verification	QC Inspector		
Doc/Data															
Equip/Tooling	Ш														
Operator	Ц														
Material															
Setup	Ш											-			
Other	Ш														
Process	Ш														
Supplier	Ш														
Training	Ш						1								
Unapproved												<u> </u>			
							AUL	LT CATE	GORY						
Landi						General	Γ	1		 	1	_	٦		
	\vdash	Bending			_ -	Bend	_	Grain		<u> </u>	Ovalized		Pressure/Forced		
		Centre N	ot Conce	ntric to	o/s	BOM/Route	<u> </u>	Hardwa			Over/Unde		Temperature/Cure		
	\vdash	Cracks Broken/Damaged				-	- `	on Incomplete		Part Incorre	<u> </u>	Weld			
	-	Crushed/	Crimped.		<u> </u>	Burrs	<u> </u>	-1	ions Incomplete/l	Jnclear	Part Lost/M		Wrong Stock Pulled		
	\vdash	Cuffs				Contamination		Mainte		<u> </u>	Part Moved				
	\vdash	Heat Trea			-	Countersink	<u> </u>	Mislabe		<u> </u>	Positioned		7		
						Cut Too Short	Misread				Power Loss,	/Surge	Other		
1	Ripples in Bend Drill Holes				Offset										

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print

October-05-12 11:24:47 AM

Work Order ID: 91388

Parent Item:

D350-636-012

Parent Item Name: Skidtube RH

91388 *D350-636-012*

Start Date: 05/10/2012

Required Date: 19/10/2012

Page 12

Start Qty: 1.00

Required Qty: 1.00

D3488-042

Manufactured

Purchased

No

230

Each

Each

15.0000

Loc Code

2,587.000

**

D3488-042 Blade Fitting Assembly, RH

> Location Loc Qty FP -9 83417 3 FP002 24 85734 3 86054 230

**

ALS4-1032-225

Insert

ALS4-1032-225

Location	Loc Qty	Loc Code	
FP-B	1156		
122290 😧	1156		
ST281	1408		
108696	146		
110768	, 62		
118386	55		
118966	68		
121269	77		
122827	1000		
ST282	23		-
120410	10		

13

120451

NCR: Ye	NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE													
										QA Close	d: Da	ate:	40 2 to 10	
Work Order					DISPOSITION		AGAINST DEPARTMENT/PROCESS							
Part No					Rework Skid-tube Crosstube Scrap Machining Small Fab Use-as-is Thermoforming Finishing Work Order Update Large Fab Composite			Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier			Engineering Quality Other			
Root				Descri	ption of work order update		nitial		tion	Sign &				
Cause	Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	on	QC Inspector	
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved					F	Au	T CATE	GORY						
Landing	Gear				General									
	Bending Centre Not Concentric to O/S Cracks Broken/Damaged Burrs Cuffs Cuffs Cuffs Contamination Countersink Inspection Strip in Tube Ripples in Bend Bend BoM/Route Broken/Damaged Contamination Countersink Cut Too Short Drill Holes			Grain Hardware Inspection Incomplete Instructions Incomplete/Unclear Maintenance Mislabeled Misread Offset		Unclear	Ovalized Over/Unc Part Incor Part Lost/ Part Mov Positione Power Lo	Missing ed d Wrong		Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other				
Torque Waves in Extrusion Drawing Out of Calibration														

Out of Sequence

Outside Dimensions

DQA:

Date:

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Finish

Picklist Print

October-05-12 11:24:47 AM

Work Order ID: 91388

Parent Item:

D350-636-012

Parent Item Name: Skidtube RH

91388 *D350-636-012*

Start Date: 05/10/2012

Required Date: 19/10/2012

Start Qty: 1.00

Required Qty: 1.00

D3492-1

D3492-1

Manufactured

230

Each

89.0000

**

8 @ 12/10/25

Location		Loc (Qty	Loc Code		
FP002	91466		82			
	69531		8			
	74444		2			
	76235		4			
	88541		3			
	89363		40			
	90334		25			
FP-A			7			
	83098		7			
		230	Each	26.0000	l	1

D3793-1

Manufactured

1 0 12/10/25

Location	Loc Qty	Loc Code		
FP001	26			
82171	2		•	
83903 87273	1			
87273	10			
89999	13			

										•	DQA:	Dat	e: _	· * *
NCR: Y	'es / No				WORK ORDER NON-C	CON	NFORM	//ANCE / UP	DATE	0	(A Closed:	Dat	٠.	• •
					,					<u> </u>	(A Closed.	Dat	€.	
Work Orde	or.				DISPOSITION				AGAINST DE	PΑ	ARTMENT/	PROCESS		
Work Orac					Rework	1		Skid-tube	Crosstube]		Water Jet		Engineering
Part N	lo.				Scrap				Small Fab	Prod. Eng. Coor.				Quality
					Use-as-is]	Therm	oforming	Finishing]	Rec/Stor	e/Packaging		Other
NCR N	lo				Work Order Update	Large Fab Composite				Supplier	\sqcup			
Root	-	Ī		Descri	tion of work order update		nitial	Ac	tion	Τ	Sign &		\neg	
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	ription		Date	Verification	1	QC Inspector
Doc/Data														
Equip/Tooling														
Operator														
Material														
Setup														
Other													1	
Process							•			1			j	
Supplier													-	
Training														
Unapproved			<u> </u>			<u> </u>				\perp				
					F.	AUL	T CATE	GORY						
Landi	ng Gear				General					_		,		1
	Bending				Bend		Grain		· _		Ovalized			Pressure/Forced
	Centre N	ot Conce	ntric to	o/s	BOM/Route		Hardwa	re	<u></u>	ļc	Over/Under	tolerance	ļ	Temperature/Cure
	Cracks				Broken/Damaged		Inspecti	on Incomplete		P	Part Incorred	ct		Weld
	Crushed,	/Crimped			Burrs		1	ions Incomplete/	'Unclear	_P	Part Lost/Mi	ssing		Wrong Stock Pulled
	Cuffs				Contamination		Mainte	nance		₽	Part Moved			
	Heat Tre	at			Countersink		Mislabe	led		_ P	Positioned V	Vrong		,
	Inspection Strip in Tube				Cut Too Short	Misread				Р	Power Loss/	Surge	i	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print

October-05-12 11:24:47 AM

Work Order ID: 91388

Parent Item:

D350-636-012

Parent Item Name: Skidtube RH

91388 *D350-636-012*

Start Date: 05/10/2012

Required Date: 19/10/2012

Start Qty: 1.00 1

Required Qty: 1.00

AN8C35A

AN8C35A

BOLT

Purchased No

Purchased

No

230

Each

28.0000

1 B 12/10/25

Location	Loc	e Qty	Loc Code		
FG		5			
121275		5			
FP002		22			
115960		1			
121275		21			
ST346		1			
114442		0			
115188		0			
115960		1			
	230	Each	50.0000	1	1

MS21083C8

MS21083C8

NUT

1 @ 12/10/25

Locatio	<u>n</u>	Loc Oty	Loc Code	
318		26		
	122452	26		
FP002		1		
	115884	1		
ST303		4		
	115884	0		
	118077	1		
	119309	2		
	119638	1		
ST321		19		
	122141	19		

NCR: Yes / No	WORK ORDER NON-CONFORMANCE / UPDATE								
				QA Closed:					
Work Order:	DISPOSITION		AGAINST DE	PARTMENT/PR					
Work Order.	Rework	Skid-tube	Crosstube	v					
Part No.	Scrap	Machining	Small Fab	Prod. E					
	Use-as-is	Thermoforming	Finishing	Rec/Store/P					

Work Order Update

General

Bend

Burrs

BOM/Route

Contamination

Countersink

Cut Too Short Drill Holes

Drawing

Finish Folio

Broken/Damaged

Description of work order update

or Non-conformance

Qty

Step

Centre Not Concentric to O/S

Date

Large Fab

Action

Description

Initial

Chief Eng

FAULT CATEGORY

Grain

Hardware

Misread

Offset

Maintenance Mislabeled

Out of Calibration Out of Sequence

Outside Dimensions

Inspection Incomplete

Instructions Incomplete/Unclear

	QA Closed:	Date	2.
AGAINST DE	PARTMENT,	/PROCESS	
Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. e/Packaging Supplier	Engineering Quality Other
on otion	Sign & Date	Verification	QC Inspector
nclear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned V	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other

Date:

DQA:

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

NCR No.

Landing Gear

Bending

Cracks

Cuffs

Heat Treat

Crushed/Crimped.

Inspection Strip in Tube

Torque Waves in Extrusion

Root

Cause

Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print										-	Page	15
October-05-12 11:24:47 AM											rage	13
Work Order ID: 91388		*0	1388	*								
Parent Item: D350-636-012				-636-0	140*							
Parent Item Name: Skidtube RH		1.	7.7:70-	-ท.วท-เ	11/		St	art Date: (5/10/2012	Pagui	ired Date: 19/10/2012	,
								tart Qty: 1		•	ired Qty: 1.00	
D2745	Manufactured	No			230	Each	126.0000	8	8		Con Contract	
D2745 Bushing								**	<u> </u>	(B)	12/10/25	
			Location	<u>!</u>	<u>Lo</u>	oc Qty	Loc Code				, ,	
			FP			122						
				79518		6						
				85416		12						
				86870		24						
				87527		40						
				89303		40			-			
			FP001			4						
				69529		1						
				76142 83260		. 1						
AN6C44A	Purchased	No		63200	230	Each	110.0000	4	4			
AN6C44A								**	4_	0	12/10/25	
			Location		<u>Lo</u>	c Qty	Loc Code					
•			FG ´			2						
				102044		2						

<u>Location</u>	!	Loc Qty	Loc Code	
FG ′		2		•
	103964	2		
ST340		39		
	122491	39		
ST341		47		
	122843	47		
ST343		22		
	121013	11		
	121167	2		
	122204	0		

												DQA:	Da	te:	
NCR:	/es	/ No				WORK ORDER NON-O	100	NFORM	ANCE / UP	DATE		•			
						<u> </u>						QA Closed:	Da	te:	
Work Orde	or.					DISPOSITION				AGAINST [DΕΙ	PARTMENT	PROCESS		
Part No.					Scrap Machining Small Fa		Crosstube Small Fab Finishing		Water Jet Prod. Eng. Coor. Rec/Store/Packaging			Engineering Quality Other			
NCR I	No.					Work Order Update			Thermoforming Finishing Large Fab Composite				Supplier	-	
Root					Descri	ption of work order update		nitial	Act	ion		Sign &			
Cause		Date	Step	Qty	,	or Non-conformance	Ch	ief Eng	Descr	iption		Date	Verificatio	n	QC Inspector
Doc/Data														1	
Equip/Tooling														ļ	
Operator														1	
Material															
Setup					:										·
Other															
Process															
Supplier															
Training															
Unapproved															
						F	AUL	T CATE	GORY						
Landi	ng (Gear				General		-				•		_	•
		Bending				Bend	L	Grain				Ovalized			Pressure/Forced
		Centre No	ot Concei	ntric to	o/s	BOM/Route		Hardwa	re			Over/Under	tolerance		Temperature/Cure
		Cracks				Broken/Damaged		Inspecti	on Incomplete			Part Incorre	ct		Weld
		Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/l	Jnclear		Part Lost/Mi	issing		Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance			Part Moved			_
Heat Treat						Countersink		Mislabeled				Positioned V	Vrong		
	Inspection Strip in Tube Cut Too Short					Misread				Power Loss/	'Surge		Other		

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

October-05-12 11:24:47 AM

Work Order ID: 91388

Parent Item:

D350-636-012

Parent Item Name: Skidtube RH

91388 *D350-636-012*

Start Date: 05/10/2012

Required Date: 19/10/2012

Start Qty: 1.00

Required Qty: 1.00

**

D3532-1 Spacer

MS21083C8

NUT

Purchased No

Purchased

No

Manufactured

Location ST056

Location

85484

20 20 250 Each

Loc Qty

Loc Qty

Each

250

Loc Code

50.0000

Loc Code

20.0000

123346 19

NAS1149D0863J

318 26 122452 26 FP002 115884 ST303 115884 118077 119309 119638 ST321 19 122141 19 250 Each

157.0000

**

WASHER

Location Loc Qty Loc Code ST298 157 118078 28 119307 120308 28 121556 100

20308

											DQA:	Date:	•
NCR:	Yes	/ No	•			WORK ORDER NON-O	100	NFORM	ANCE / UPDATE		·	···	•
											QA Closed:	Date:	
Work Orde	or.					DISPOSITION AGAINST			GAINST DEI	PARTMENT	PROCESS		
Part No						Rework Skid-tube Crosstube Machining Small Fab Use-as-is Thermoforming Finishing Composite				Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other		
Root	I				Descri	ption of work order update		nitial	Action		Sign &		
Cause		Date	Step	Qty	C	or Non-conformance	Ch	ief Eng	Description	1	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved													
,					-		AUL	T CATE	GORY			· · · · · · · · · · · · · · · · · · ·	
Landi	Landing Gear Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube General Bend BOM/Route Broken/Damaged Contamination Contamination Cut Too Short					Instruct Mainte Mislabe Misreac	on Incomplete ions Incomplete/Unclea nance led		Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned V	ct sissing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other		
	Ripples in Bend Drill Holes						Offset						

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

October-05-12 11:24:47 AM

Work Order ID: 91388

Parent Item:

D350-636-012

Parent Item Name: Skidtube RH

91388 *D350-636-012*

Start Date: 05/10/2012

Required Date: 19/10/2012

Start Qty: 1.00

Required Qty: 1.00

D3493-I

***ONLY INSTALL IF INSTALLING ON APICAL

AN8C21A

250

Each

31.0000

Loc Code

FLOAT SYSTEM***

Purchased

Manufactured

No

Location Loc Qty ST050 31 77573 1 82023 2 83097 28

250

Each 39.0000

83097

Location	Loc Qty
ST341	25
122519	25
ST343	14
118758	1
122204	13

Loc Code

											DQA:	Date:		
NCR:	Yes /	No				WORK ORDER NON-O	CO	NFORM	AANCE / UPDA	ATE	·			
											QA Closed:	Date:		
Work Orde	ar.					DISPOSITION AGAINST DE			AGAINST DE	PARTMENT	PROCESS			
VVOIR OIG	·'· —				<u> </u>	Rework	Skid-tube Crosstube				Water Jet	Engineering		
Part N	No.					Scrap Machining Small Fab				Pro	d. Eng. Coor.	Quality		
						Use-as-is			noforming	Finishing	Rec/Stor	e/Packaging	Other	
NCR 1	No					Work Order Update	J		Large Fab	Composite		Supplier		
Root					Descri	ption of work order update	Π	nitial	Actio	n	Sign &	· · · · · · · · · · · · · · · · · · ·		
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Descrip	tion	Date	Verification	QC Inspector	
Doc/Data	Ш		1											
Equip/Tooling	Ш									•				
Operator														
Material							1							
Setup														
Other														
Process														
Supplier														
Training														
Unapproved														
						F	AUL	T CATE	GORY					
Landi	ng Ge	ar				General		_			_			
	В	ending				Bend		Grain			Ovalized		Pressure/Forced	
		entre No	t Concer	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure	
	Cı	racks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld	
	Cı	rushed/0	Crimped.			Burrs		Instruct	ions Incomplete/Un	clear	Part Lost/M	ssing	Wrong Stock Pulled	
	Cı	uffs				Contamination		Mainte	nance		Part Moved			
	Heat Treat Countersink							Mislabe	led		Positioned Wrong			
	[]In	spection	Strip in	Tube		Cut Too Short	Misread				Power Loss/	Surge	Other	
	Ripples in Bend Drill Holes						Offset			•				

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

*QTY -041 QTY QTY QTY PART NUMBER DESCRIPTION D2750-041 350 SKIDTUBE ASSEMBLY, LH D2750-042 350 SKIDTUBE ASSEMBLY, RH D2750-043 Х 350 SKIDTUBE ASSEMBLY, LH X D2750-044 350 SKIDTUBE ASSEMBLY, RH 1 D2739 WEB 8 8 8 8 D2743 SPACER D2744 CAP 8 8 8 D2745 8 BUSHING 1 D2750-1 SKIDTUBE WELDMENT, LH D2750-2 SKIDTUBE WELDMENT, RH D2750-3 SKIDTUBE WELDMENT, LH D2750-4 SKIDTUBE WELDMENT, RH D3488-041 BLADE FITTING, LH D3488-042 BLADE FITTING, RH SPACER 4 4 4 4 D3490-1 4 4 D3490-3 SPACER D3490-5 SPACER 8 8 D3492-041 PLUG ASSEMBLY 8 D3492-043 PLUG ASSEMBLY D3492-045 PLUG ASSEMBLY D3535-25 WEARSHOE 1 D3536-25 GASKET 3 3 D3537-1 3 3 WEARPAD D3631-1 WASHER 8 1 1 1 D3791-1 WEARPLATE 1 1 D3793-1 WEARSHOE D3793-3 WEARSHOE 1 1 1 1 D3794-1 GASKET 1 1 D3794-3 GASKET INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225) 38 38 38 38 ALS4-1032-225 34 34 34 34 AN3C5A BOLT 4 4 4 4 AN3C6A BOLT AN6C44A BOLT 1 AN8C35A BOLT 38 38 38 38 AN960C10L WASHER AN960C816L WASHER 1 1 4 4 4 4 MS21043-6 NUT 1 1 MS21083C8 NUT 4 4 NAS1515H3L WASHER

GENERAL NOTES:

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MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).

H: ACID ETCH, ALONDE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB. POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3 BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).

TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

UNITS: INCHES UNLESS OTHERWISE NOTED

BREAK SHARP EDGES: N/A
IDENTIFICATION: N/A
WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS

WELD PER DART QSI 004

WELD PER DART QSI 004
INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL 'F' SIZE HOLES (Ø 0, 297) FOR WEARSHOE INSERTS
FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS.
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER.

SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL PSPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

SHOP COPY **RETURN TO** ENGINEERING UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE WORK ORDER NO. 91388 MC

12-16-05

F	OTY (3) D3791- D3794- ADD D3 WEARS (8 PL), \	INCORPORATE DSI 9413; 017 (3) DS357-1 WAS 017 (5) (ZN C8-1); D3791-1/3 REPLACES D3535-13/-35 (ZN C8-1); D3791-1/3 REPLACES D3535-13/-35 (ZN B8-1); ADD D3791-1 (ZN C8-1); WEARSHOE HOLES UNDER FWD/AFT SADDLE REMOVED (8 Pt.) WEARSHOE HARDWARE 017 UPDATED (ZN B8-1); D3488-041/024 HARDWARE UPDATED (ZN C1-8, 9, 10, 111); ADD NOTE 12 AND 13 (ZN A8-1); RCASON REF. NCK 16-043						
E	CHANGE TO STAINLESS STEEL WEARPLATES							
D	ADD HO	OLES AND SHAPORATE DEO!	PH	06.01.05				
С	ADD D2	750-3/D2750-4	CP	98.11.18				
В	CHANG	E MS24694-S2	CP 98.09.01					
A	NEW IS	SUE		DS	98.04.16			
REV.			DESCRIPTION	BY	DATE			
DESIGN	1	PØ,	DART AEROSPACE	USA	INC.			
DRAWN	<u> </u>	RH	PORT HADLOCK	, WA	-			
CHECK	ED	لماند	DRAWING NO.		REV. F			
MFG. A	PPR.	ALC:	D2750	8	HEET 1 OF 11			
APPRO	VED	11	TITLE		SCALE			
DE APF	R.	4	350 SKIDTUBE ASSE	MBLY	NTS			
DATE	DATE 08.07.16 INDICATE 0 1988 BY DART AEROSPACE USA, INC. THE SOCIORET BEHAVIOR OF CONTROL OF CONT							

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D2750-041 350 SKIDTUBE ASSEMBLY, LH

D2750-042 350 SKIDTUBE ASSEMBLY, RH

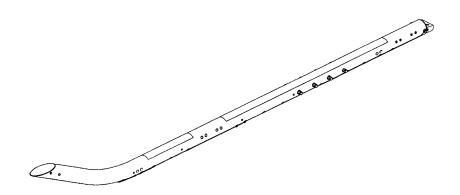


DESIGN	Per	DART AEROSPACE USA, INC. PORT HADLOCK, WA					
DRAWN	Pd						
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MFG. APPR.	LAW.	D2750	HEET 2 OF 11				
APPROVED	Ma	TITLE	SCALE				
DE APPR.	-	☐ 350 SKIDTUBE ASSEMBLY	NTS				
DATE 08.0	07.16	COPYRIGHT @ 1998 BY DART AEROSPACE USA, INC. THIS OCCUMENT IS PRIVATE AND COMPORTED, AND IS SUPPLED ON THE EXPRESS CONCITION THAT IT IS NOT TO BE USED FOR ANY PAPPOSE ON COPED DISCONDURATED TO MAY FORMER PERSONWITHOUT WITH THE PREMISSION FROM ANY ADVISAGE USA INC.					

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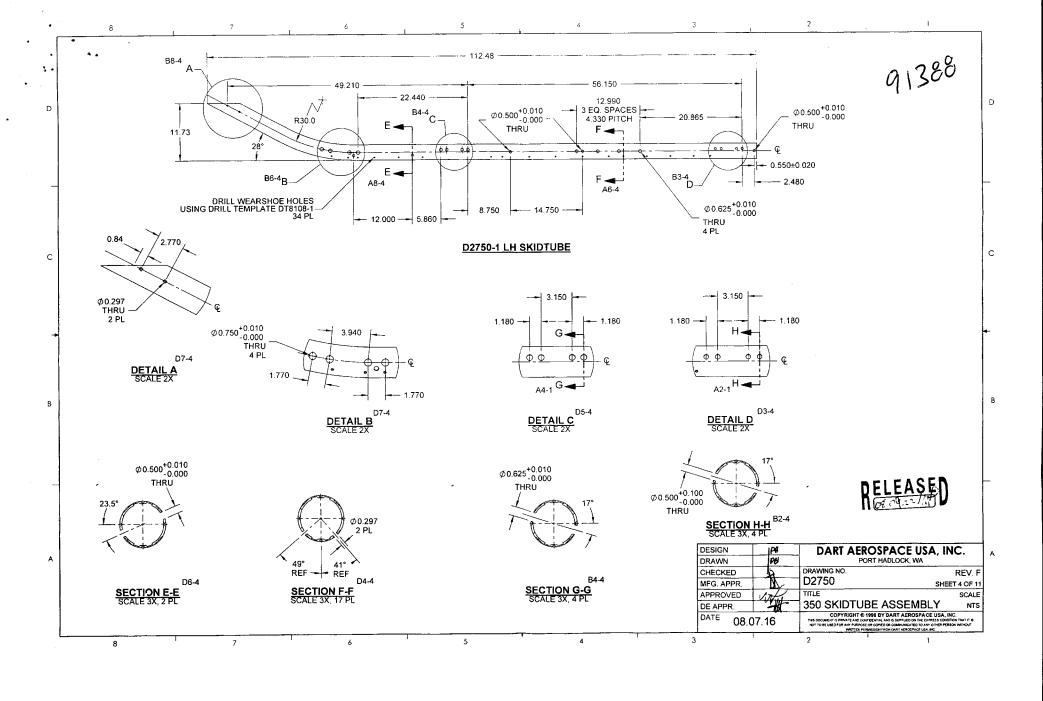
D2750-043 350 SKIDTUBE ASSEMBLY, LH

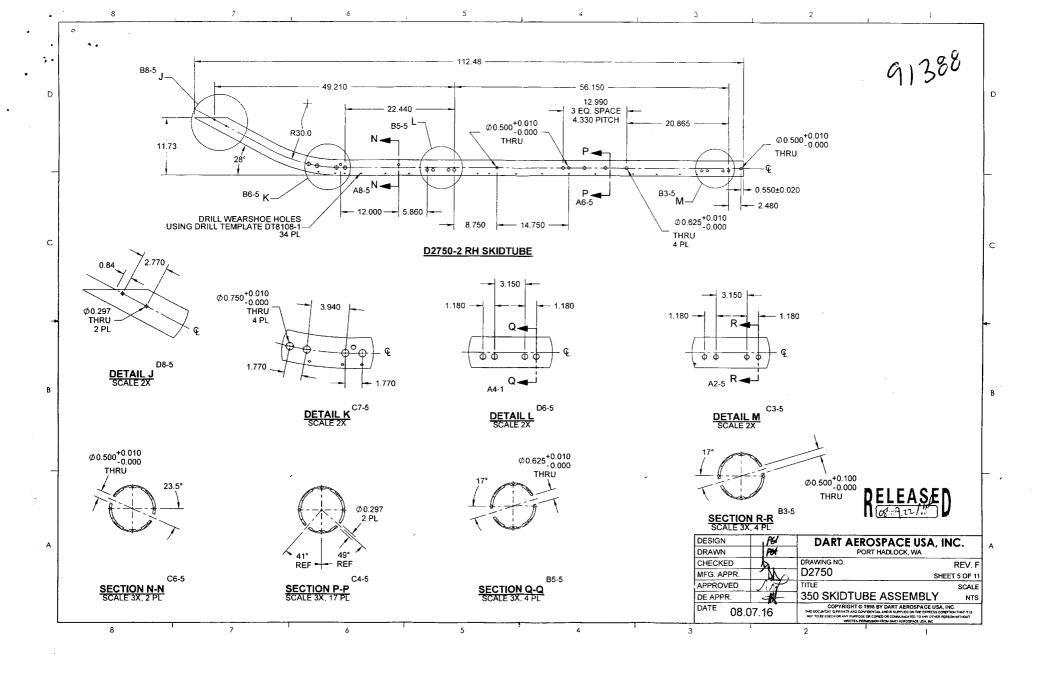
D2750-044 350 SKIDTUBE ASSEMBLY, RH

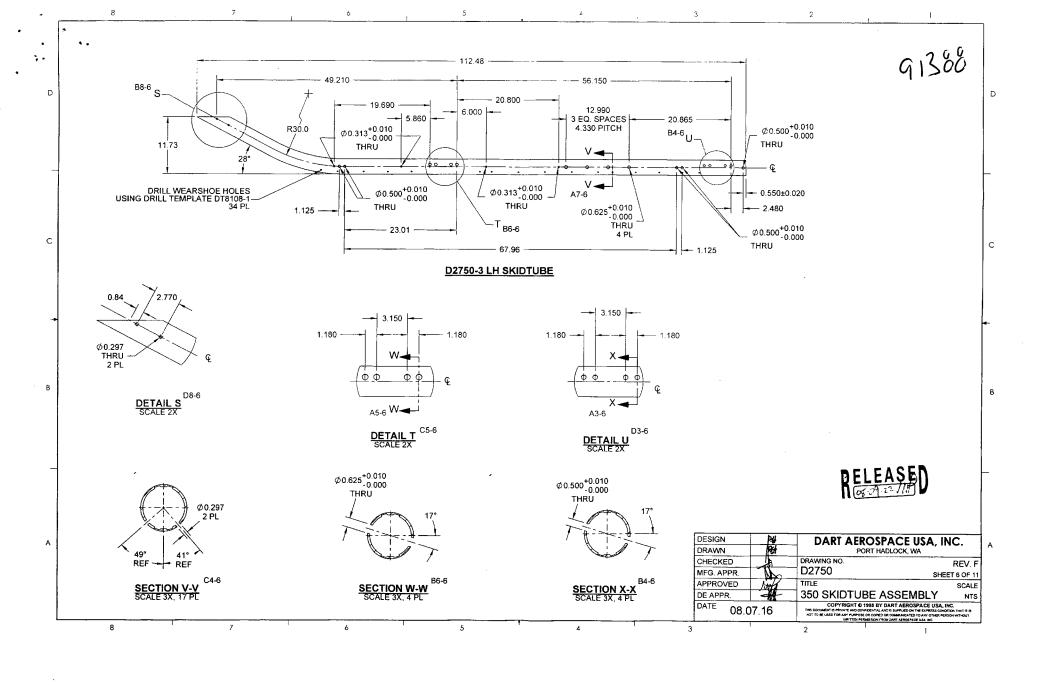


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DATE 08.0	07.16	COPYRIGHT © 1938 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND COMPIDENTIAL AND IS SUPPLED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PUMPOSE ON COMED DECOMALIZATED TO JAM FOR THE PRESSES HISTORY ASSESSMENT ARROSPACE USA, INC. WINTERS PRESSESSMENT AND PASSESSMENT ARROSPACE USA, INC.			

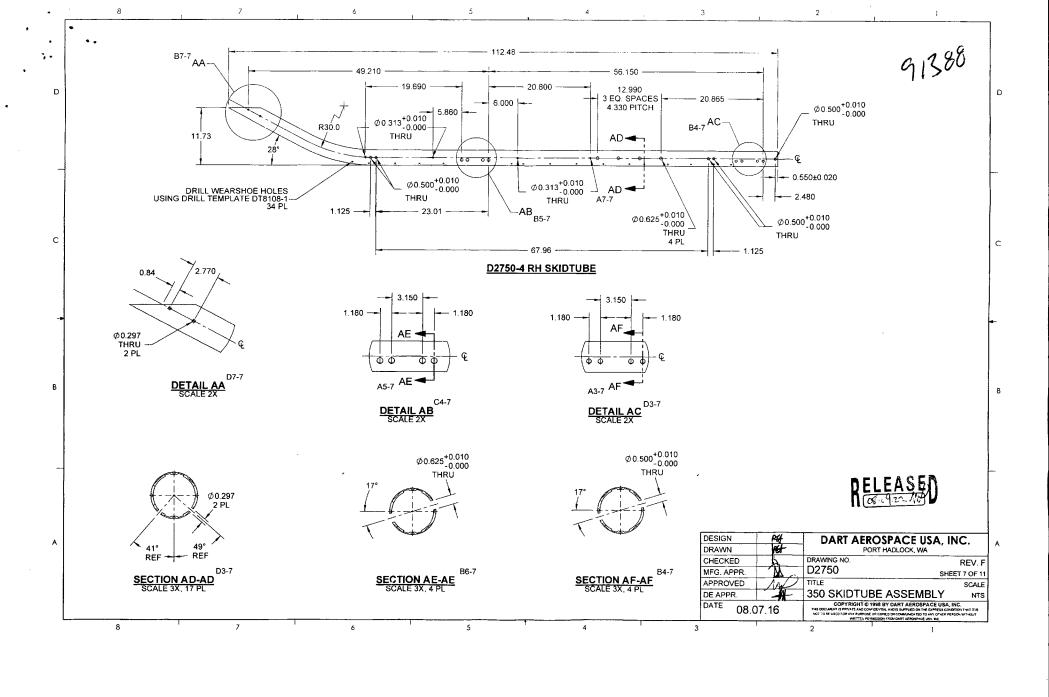
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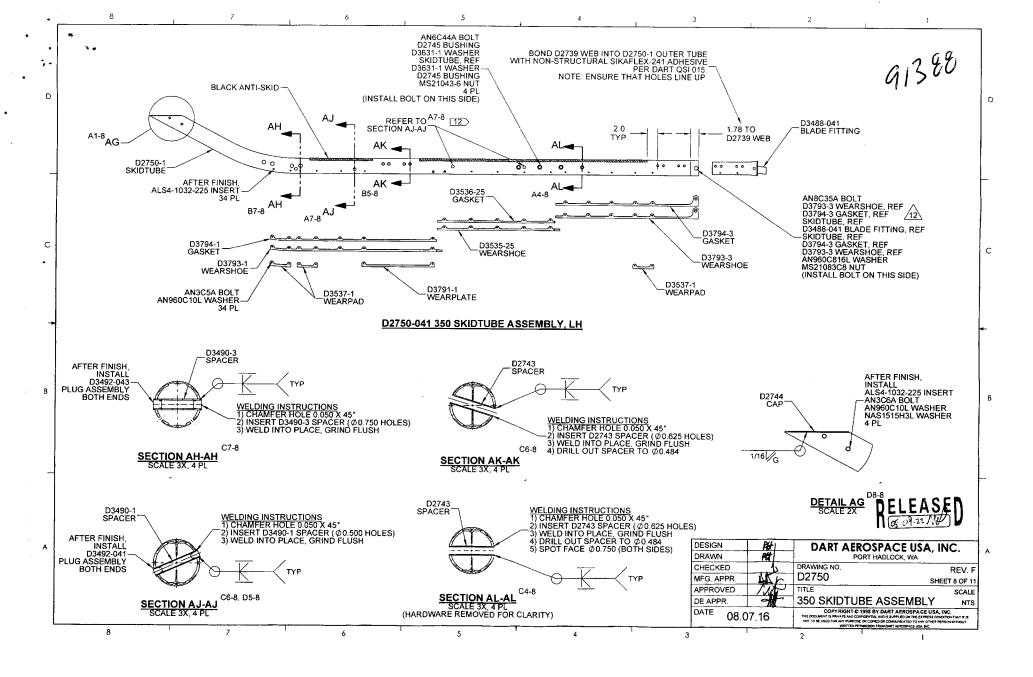


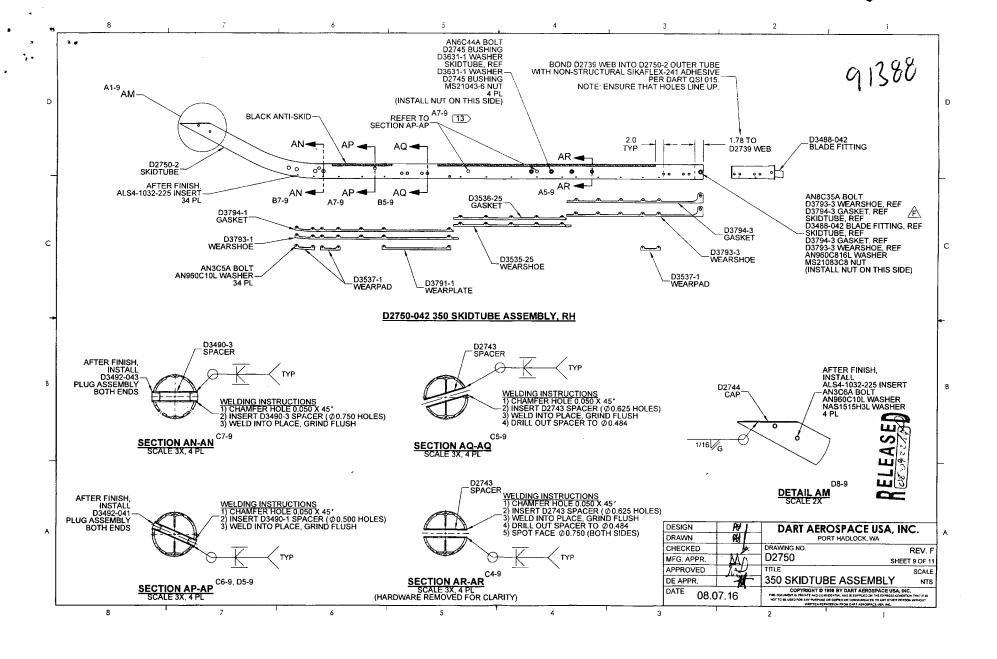


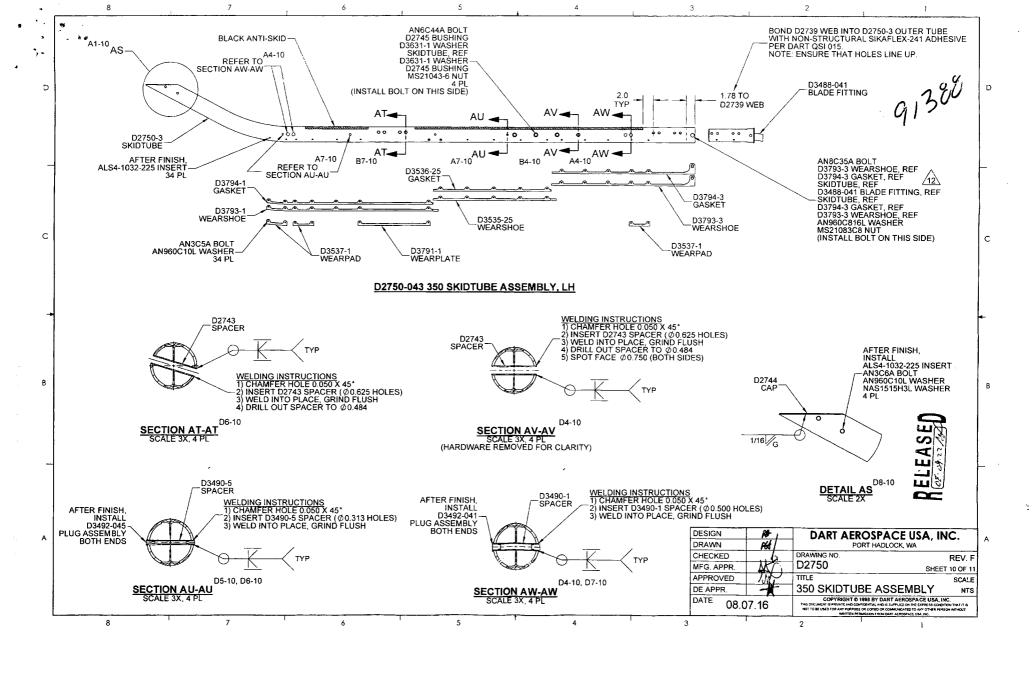


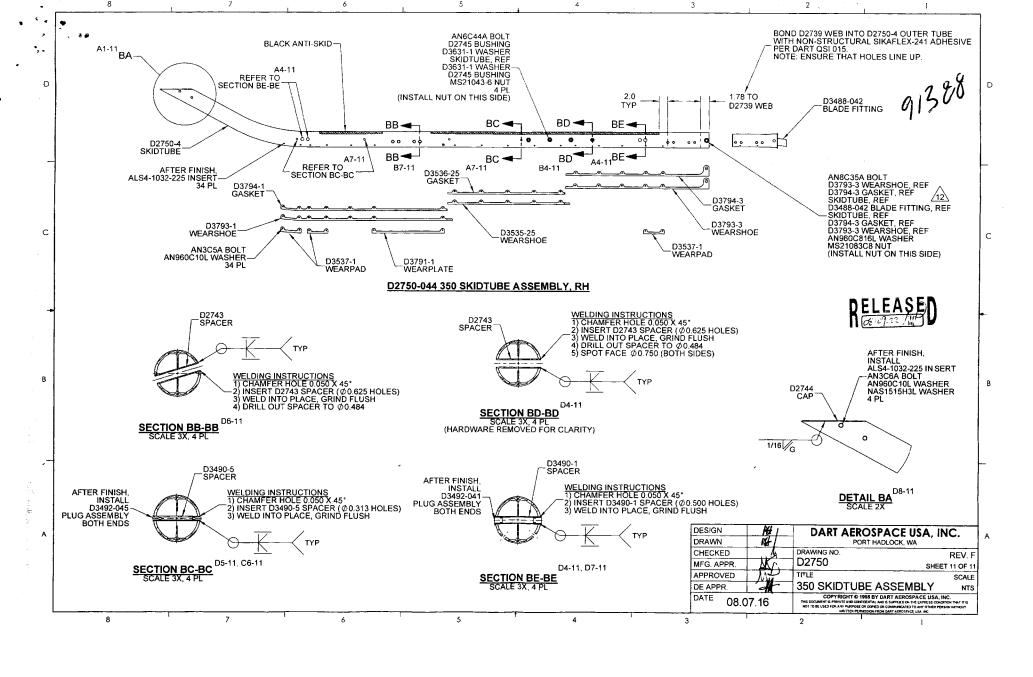
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NO. 306

AWS D17.1.2001 QUALIFICATION TEST RECORD

Name: Barday Elliott		. :		
Job #:90946 0	 			
Part #: 0350 - 636-011		· \	ί,	
Description: Skid tube		:	:	
Welding Process: Tig[Mig[]				
Base materiel: Aluminium	 ! !		<u> </u>	
Current: AC[V] DC[]				

TEST REQUIREMENTS AND RESULTS

Visual:	pass[/]	fail			
Incomplete Penetration:	pass[]	fail[]			
Incomplete Fusion:	pass[/	fail[]			
Cracks:	pass[]	fail[]			
Overlap (cold lap)	pass[/]	fail[]	- :		
Undercut:	pass[🔨]	fail[]			
Pin holes:	pass[]	fail[]		1	
Porosity (surface):	pass[-]	fail[]		·	
Coloration:	pass[]	fail[]			
Burn through:	pass[/]	fail[]			
2100			.~		
Qualifier / A. //w/	Date of To	est Coupon	la	-10-19	
Welder Broken Sthort	Date of T	est Coupon	12	10-12	

The above named individual is qualified in accordance with AWS D17.1.2001 to weld